इंटरनेट मानक

Disclosure to Promote the Right To Information

Whereas the Parliament of India has set out to provide a practical regime of right to information for citizens to secure access to information under the control of public authorities, in order to promote transparency and accountability in the working of every public authority, and whereas the attached publication of the Bureau of Indian Standards is of particular interest to the public, particularly disadvantaged communities and those engaged in the pursuit of education and knowledge, the attached public safety standard is made available to promote the timely dissemination of this information in an accurate manner to the public.

"जानने का अधिकार, जीने का अधिकार"
Mazdoor Kisan Shakti Sangathan
"The Right to Information, The Right to Live"

"पुराने को छोड नये के तरफ"
Jawaharlal Nehru
"Step Out From the Old to the New"

IS 6766 (1993): Buffing compounds used for nickel and chrome plated surfaces [CHD 23: Lac, Lac Products and Polishes]

"ज्ञान से एक नये भारत का निर्माण"
Satyanarayan Gangaram Pitroda
"Invent a New India Using Knowledge"

Act Number 22 of 2005
The Indian Parliament
RIGHT TO INFORMATION

Made Available By
Public.Resource.Org

"ज्ञान एक ऐसा खजाना है जो कभी चुराया नहीं जा सकता है"
Bhartṛhari—Nītiśatakam
"Knowledge is such a treasure which cannot be stolen"

BLANK PAGE

BRUTUM FULMEN

IGNORANTIA JURIS NON EXCUSAT

PROTECTED BY COPYRIGHT

IS 6766 : 1993

भारतीय मानक

निकल और क्रोम लेपित सतह् के लिए प्रयुक्त बफिंग यौगिक — विशिष्टि

(पहला पुनरीक्षण)

Indian Standard

BUFFING COMPOUNDS USED FOR NICKEL AND CHROME PLATED SURFACES — SPECIFICATION

(First Revision)

UDC 667.82 : 621.357.7

© BIS 1993

BUREAU OF INDIAN STANDARDS
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG
NEW DELHI 110002

July **1993** **Price Group 2**

Polishes Sectional Committee, CHD 023

FOREWORD

This Indian Standard was adopted by the Bureau of Indian Standards after the draft finalized by the Polishes Sectional Committee had been approved by the Chemical Division Council.

Nickel and chrome plated surfaces are buffed with a polishing compound immediately after the electroplating operation, to obtain a smooth and lustrous surface.

This standard was first published in 1972. Looking into the changes in the field during the last two decades, the Polishes Sectional Committee decided to revise it. In this revision, keeping quality and packing requirements have been modified to bring it at par with modern day practices.

The Committee responsible for the preparation of this standard is given at Annex C.

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS 2 : 1960 'Rules for rounding off numerical values (*revised*)'. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

AMENDMENT NO. 1 JANUARY 2007
TO
IS 6766 : 1993 BUFFING COMPOUNDS USED FOR NICKEL AND CHROME PLATED SURFACES — SPECIFICATION

(First Revision)

(*Page* 1, *clause* **3.1.1)** — Substitute the following for the existing:

'**3.1.1** *Ambient Temperature* — It is the temperature of 27 ± 2°C'.

(CHD 23)

Reprography Unit, BIS, New Delhi, India

Indian Standard

BUFFING COMPOUNDS USED FOR NICKEL AND CHROME PLATED SURFACES — SPECIFICATION

(First Revision)

1 SCOPE

This standard prescribes requirements and methods of sampling and test for buffing compounds used for polishing nickel and chrome plated surfaces.

2 REFERENCES

The Indian Standards listed below arc necessary adjuncts to this specification.

IS No.	*Title*
1070 : 1992	Reagent grade water *(third revision)*
4905 : 1968	Random sampling
8171 : 1992	Glossary of terms relating to polishes and related materials *(second revision)*

3 TERMINOLOGY

3.1 For the purpose of this standard, the definitions given in IS 8171 : 1992 and the following shall apply.

3.1.1 *Ambient Temperature*

It is the temperature between 21 and 38°C.

4 REQUIREMENTS

4.1 Composition

The buffing compounds shall essentially consist of calcined dolomite (a mixture of calcined CaO and MgO) and/or other suitable abrasive materials, embedded uniformly in a mixture of fat, fatty acid and neutral amine soap, such as triethanolaminc soap.

4.1.1 The buffing compound shall not contain any ingredient which in any way, may adversely affect the material to be polished.

4.2 Odour

4.2.1 The compound shall not have any disagreeable odour.

4.2.2 The compound shall not emit any disagreeable odour in buffing operation.

4.3 Fatty Matter

The total amount of fats and fatty acids as determined in **A-1**, shall be within the range of 30 to 40 percent by mass.

4.4 Abrasive Material

The particle size of the abrasive material obtained after extraction of fat and other fatty materials shall lie between 75 and 106 micron when tested in accordance with **A-2.**

4.4.1 The shape of the particle of the abrasive material shall be preferably round in appearance when examined in a thin layer in oil medium under microscope.

4.4.2 When tested in accordance with **A-3**, the abrasive material shall be soluble in dilute hydrochloric acid and there shall be no evolution of carbon dioxide. Additionally there shall be no residue of silica.

4.4.3 It shall be free from hydroxide formation. Loss in mass on heating the material between 600 to 650°C for one hour shall not be more than 1 percent when tested in accordance with **A-4.**

4.5 Polishing Properties

4.5.1 The compound shall make the plated surface bright without scratching the metal and without leaving the metal discoloured or greasy or caked with abrasive material.

4.5.2 It shall brighten the plated surface quickly and leave a smooth and bright surface with full lustre on normal buffing operation.

4.6 Keeping Qualities

The buffing compound shall not deteriorate in any manner inside the sealed container and shall comply with the requirements of this specification for two years from the date of manufacture when stored in its original sealed container under cover at ambient temperature.

5 PACKING AND MARKING

5.1 Packing

5.1.1 The buffing compound shall be packed in clean and dry metallic or other suitable containers, as agreed to between the purchaser and the supplier, and sealed, leaving 5 to 7 percent of ullage space.

5.1.2 The single container shall contain preferably 500 g of material or as agreed to between the purchaser and the supplier.

5.1.3 The containers shall be packed into suitable cartons and in turn cartons into wooden or fibreboard (cardboard) boxes as agreed to between the purchaser and the supplier.

5.2 Marking

5.2.1 The cartons shall be marked with date of manufacture of buffing compounds.

5.2.2 The containers shall be marked with the following:

a) Manufacturer's name and trade-mark, if any;

b) Net mass of the material when packed;

c) The words 'Buffing Compounds for Nickel and Chrome Plated Surfaces'; and

d) Instructions for use.

NOTE — Any other marking required under Weights and Measures (Packaged Commodities) Regulations. 1977 may also be complied with.

6 SAMPLING

6.1 Representative samples tor tests shall be drawn as specified in Annex B.

ANNEX A

(*Clauses* 4.3, 4.4, 4.4.2 *and* 4.4.3)

METHODS OF TESTS FOR BUFFING COMPOUNDS USED FOR NICKEL AND CHROME PLATED SURFACES

A-0 QUALITY OF REAGENTS

A-0.1 Unless specified otherwise, pure chemicals and distilled water (*see* IS 1070 : 1992) shall be used in tests.

NOTF — 'Pure chemicals' shall mean chemicals that do not contain impurities which affect the results of analysis.

A-1 DETERMINATION OF FATTY MATTER

A-1.1 Procedure

Weigh accurately about 10 g of the well mixed sample into a centrifuge tube and dilute with a solvent mixture consistingof 6 parts by volume of hydrocarbon solvent 60/80, 3 parts by volume of benzene and 1 part of acetone (taking precaution that the sample is not exposed to air unnecessarily). Centrifuge at 1 400 rev/min for 30 minutes. Remove the supernatant liquid portion. Extract the solid residue in the tube twice exactly as above to remove all fatty material. Finally, dry the residue at 105 to 110°C to constant mass, cool in a desiccator and weigh. (Keep the residue for further tests in a desiccator.)

A-1.2 Calculation

$$\text{Total fatty matter, percent by mass} = \frac{100\,(M - M_1)}{M}$$

where

M = mass, in g, of the sample taken for the test; and

M_1 = mass, in g, of the residue.

A-2 TEST FOR PARTICLE SIZE

A-2.1 Weigh accurately about 50 g of the thoroughly mixed buffing compound in a 200-ml beaker and mix with 100 ml of white spirit. Transfer the contents of the beaker to a 106-micron IS Sieve using a wash bottle containing petroleum solvent. Catch the sieved material on a 75-micron IS Sieve kept immediately below the 106-micron sieve. Wash gently with petroleum solvent until the washing liquid after passing through the 106-micron sieve contains no particles. Examine the 106-micron sieve and the liquid under 75-micron sieve. There shall be no residue left over the 106-micron sieve and practically no solid particles in the liquid caught under 75-micron sieve.

A-3 TEST FOR SOLUBILITY OF THE ABRASIVE MATERIAL IN HYDROCHLORIC ACID

A-3.1 Procedure

Take about 1.0 g of residue as obtained in **A-1.1** in a test-tube and add about 3 to 4 ml of dilute hydrochloric acid and shake. There shall be no effervescence due to evolution of carbon dioxide. If there is any, pass the gas through lime water. It shall not turn the lime water milky. Observe the test-tube contents when the reaction is completed. There shall be no insoluble matter left in the test-tube.

A-4 LOSS ON IGNITION OF THE ABRASIVE MATERIAL

A-4.1 Weigh accurately 5 g of the residue (abrasive material) as obtained in **A-1.1** in a weighed crucible with lid on. Keep the crucible and lid in an electric muffle furnace maintained between 600 to 650°C for one hour. Cool and weigh again.

A-4.2 Calculation

$$\text{Loss on ignition of the residue by mass, percent} = \frac{100\,(M_1 - M_2)}{M_1}$$

where

M_1 = mass, in g, of the residue; and

M_2 = mass, in g, of the residue after heating.

ANNEX B

(*Clause* 6.1)

SAMPLING OF BUFFING COMPOUNDS USED FOR NICKEL AND CHROME HATED SURFACES

B-1 GENERAL REQUIREMENTS FOR SAMPLING

B-1.0 In drawing, preparing, storing and handling test samples, the following precautions and directions shall be observed.

B-1.1 Samples shall be taken in a protected place, not exposed to damp air, dust or soot.

B-1.2 The sampling instalment shall be clean and dry when used.

B-1.3 Precautions shall be taken to protect the samples, the material being sampled, the sampling instrument and the containers for samples, from adventitious contamination.

B-1.4 The samples shall be placed in clean, dry and air-tight glass containers or other suitable containers on which the material has no action.

B-1.5 The sample containers shall be of such a size that they are almost completely filled by the sample.

B-1.6 Each sample container shall be sealed air-tight after filling and marked with full details of sampling, the date of sampling and the year of manufacture of the material.

B-1.7 Samples shall be stored in such a manner that the temperature of the material does not vary unduly from the normal temperature.

B-2 SCALE OF SAMPLING

B-2.0 To determine conformity of a consignment of buffing compounds to this specification, samples shall be selected so as to be representative of the whole consignment. In the absence of any prior agreement between the purchaser and the supplier on the mode of sampling and determining the criteria of conformity, the following sampling scheme is recommended to serve as a guide.

B-2.1 Lot

All the containers in a single consignment of the material drawn from the same batch of manufacture and of the same size shall constitute a lot. If a consignment is declared or known to consist of different batches of manufacture or of different sizes of containers, the containers, belonging to the same batch and size shall be grouped together and each such group shall constitute a separate lot.

B-2.1.1 Samples shall be tested for each lot for ascertaining the conformity of the material to the requirements of this specification.

B-2.2 The number of containers *(n)* to be chosen from a lot shall depend upon the size of the lot (*N*) and shall be in accordance with Table 1.

B-2.3 These containers shall be chosen at random from the lot *(see* IS 4905 : 1968). In order to ensure the randomness of selection, some random number table as agreed to between the purchaser and the supplier, shall be used. In case such a table is not available, the following procedure shall be adopted:

> Arrange all the containers in the lot in a systematic manner and starting from any container, count them as 1, 2, 3,....., up to *r* and so on where *r* is the integral part of *N/n.* Every *r*th container thus counted shall be withdrawn to give sample for test.

Table 1 Number of Containers to be Selected

(Clause B-2.2)

Lot Size *N* (1)	No. of Containers to be Selected *n* (2)
Up to 500	10
500 to 1 000	15
1 000 and above	20

B-3 PREPARATION OF COMPOSITE SAMPLE

B-3.1 Draw with a cork borer of approximately 2 cm diameter hole, vertical sections of the material from different points across the surface from the containers selected according to **B-2.3**. A scoop or spatula may also be used, if more convenient. The total quantity of the material drawn shall be sufficient for all the tests.

B-3.1.1 Thoroughly mix all the portions drawn from different containers by means of a mechanical stirrer below 45°C, so as to form a composite sample.

B-4 NUMBER OF TESTS AND CRITERIA FOR CONFORMITY

B-4.1 Test for all the characteristics shall be carried out on the composite sample.

B-4.2 The lot shall be declared as conforming to this specification if the test results satisfy the corresponding requirements.

ANNEX C

(Foreword)

COMMITTEE COMPOSITION

Polishes Sectional Committee, CHD 023

Chairman	*Representing*
SHRI D. DASGUPTA	Reckitt Institute of Industrial Research, New Delhi
Member	
DR S. K. SURI *(Alternate*	
to Shri D. Dasgupta)	Shriram Leather Research Institute, Madras
SHRI A. K. AGARWAL	
SHRI V. K. VERMA *(Alternate)*	Central Leather Research Institute, Madras
SHRI K. G. ANAND DEV	
DR HARI BABU *(Alternate)*	Ministry of Defence (DGQA), New Delhi
SHRI S. K. ASTHANA	
SHRI O. P. GUPTA *(Alternate)*	Naval Headquarters, New Delhi
COMMODORE K. C. CHAWLA	
COMMODORE S. P. DUTT *(Alternate)*	Railway Board, New Delhi
CHEM AND METT ER I	
ARO CHEM II *(Alternate)*	Border Security Force, New Delhi
DY DIRECTOR (PROV)	Billy Boot Polish Company, Delhi
SHRI SHYAM GAMBHIR	Waxpol Industries Ltd, Calcutta
SHRI R. GANGULY	
SHRI R. P. GUPTA *(Alternate)*	National Test House, Calcutta
SHRI M. GOPALAKRISHNA	
SHRI S. N. MISHRA *(Alternate)*	Development Commissioner (SSI), New Delhi
SHRI S. K. KAPOOR	Directorate General of Supplies and Disposals, New Delhi
SHRI N. K. KAUSHAL	
SHRI P. JAYAKUMARAN *(Alternate)*	Amar Industries, New Delhi
DR RAJENDER LAL	
DR ANITA *(Alternate)*	Central Reserve Police Force, New Delhi
SHRI RAJINDER SINGH	Automobile Association of India, New Delhi
SHRI T. K. MALHOTRA	Directorate General of Technical Development, New Delhi
SHRI A. K. MANDAL	
SHRI JASBIR SINGH *(Alternate)*	Addisons Paints and Chemicals Ltd, Madras
SHRI P. D. RAMABADRAN	
SHRI K. R. SANTHANAM *(Alternate)*	ICI (India) Ltd, Calcutta
REPRESENTAIWE	Bata India Ltd, Calcutta
DR S. K. ROY	
SHRI SUNIL SARKAR *(Alternate)*	Premier Vinyl Flooring Ltd, New Delhi
SHRI K. K. SINHA	
SHRI PRADEEP SINGH *(Alternate)*	New Way Chemicals and Polishes Pvt Ltd, Madras
SHRI S. SURESH	Consumer Guidance Society of India, Bombay
SHRI N. G. WAGLE	
SHRI R. C. MISRA *(Alternate)*	Director General, BIS *(Ex-officio Member)*
DR R. K. SINGH,	
Director (Chem)	

Member Secretary
SHRI R. NARUIA
Joint Director (Chem), BIS

Standard Mark

The use of the Standard Mark is governed by the provisions of the *Bureau of Indian Standards Act. 1986* and the Rules and Regulations made thereunder. The Standard Mark on products covered by an Indian Standard conveys the assurance that they have been produced to comply with the requirements of that standard under a well defined system of inspection, testing and quality control which is devised and supervised by BIS and operated by the producer. Standard marked products are also continuously checked by BIS for conformity to that standard as a further safeguard. Details of conditions under which a licence for the use of the Standard Mark may be granted to manufacturers or producers may be obtained from the Bureau of Indian Standards.

Bureau of Indian Standards

BIS is a statutory institution established under the *Bureau of Indian Standards Act, 1986* to promote harmonious development of the activities of standardization, marking and quality certification of goods and attending to connected matters in the country.

Copyright

BIS has the copyright of all its publications. No part of these publications may be reproduced in any form without the prior permission in writing of BIS. This does not preclude the free use, in the course of implementing the standard, of necessary details, such as symbols and sizes, type or grade designations. Enquiries relating to copyright be addressed to the Director (Publications), BIS.

Review of Indian Standards

Amendments are issued to standards as the need arises on the basis of comments. Standards are also reviewed periodically; a standard along with amendments is reaffirmed when such review indicates that no changes are needed; if the review indicates that changes are needed, it is taken up for revision. Users of Indian Standards should ascertain that they are in possession of the latest amendments or edition by referring to the latest issue of 'BIS Handbook' and 'Standards Monthly Additions'. Comments on this Indian Standard may be sent to BIS giving the following reference:

Doc : No CHD 023 (0410)

Amendments Issued Since Publication

Amend No.	Date of Issue	Text Affected

BUREAU OF INDIAN STANDARDS

Headquarters:

Manak Bhavan, 9 Bahadur Shah Zafar Marg, New Delhi 110002
Telephones : 331 01 31, 331 13 75
Telegrams : Manaksanstha
(Common to all Offices)

Regional Offices: Telephone

Central : Manak Bhavan, 9 Bahadur Shah Zafar Marg
NEW DELHI 110002
331 01 31
331 13 75

Eastern : 1/14 C. I. T. Scheme VII M, V. I. P. Road, Maniktola
CALCUTTA 700054
37 84 99, 37 85 61
37 86 26, 37 86 62

Northern : SCO 445-446, Sector 35-C, CHANDIGARH 160036
53 38 43, 53 16 40
53 23 84

Southern : C. I. T. Campus, IV Cross Road, MADRAS 600113
235 02 16, 235 04 42
235 15 19, 235 23 15

Western : Manakalaya, E9 MIDC, Marol, Andheri (East)
BOMBAY 400093
632 92 95, 632 78 58
632 78 91, 632 78 92

Branches : AHMADABAD. BANGALORE. BHOPAL. BHUBANESHWAR. COIMBATORE. FARIDABAD. GHAZIABAD. GUWAHATI. HYDERABAD. JAIPUR. KANPUR. LUCKNOW. PATNA. THIRUVANANTHAPURAM.

Printed at Printrade, New Delhi, India